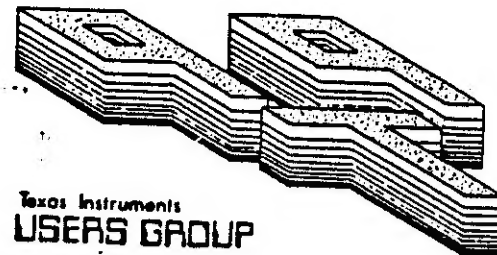


Newsletter Nine-T-Nine

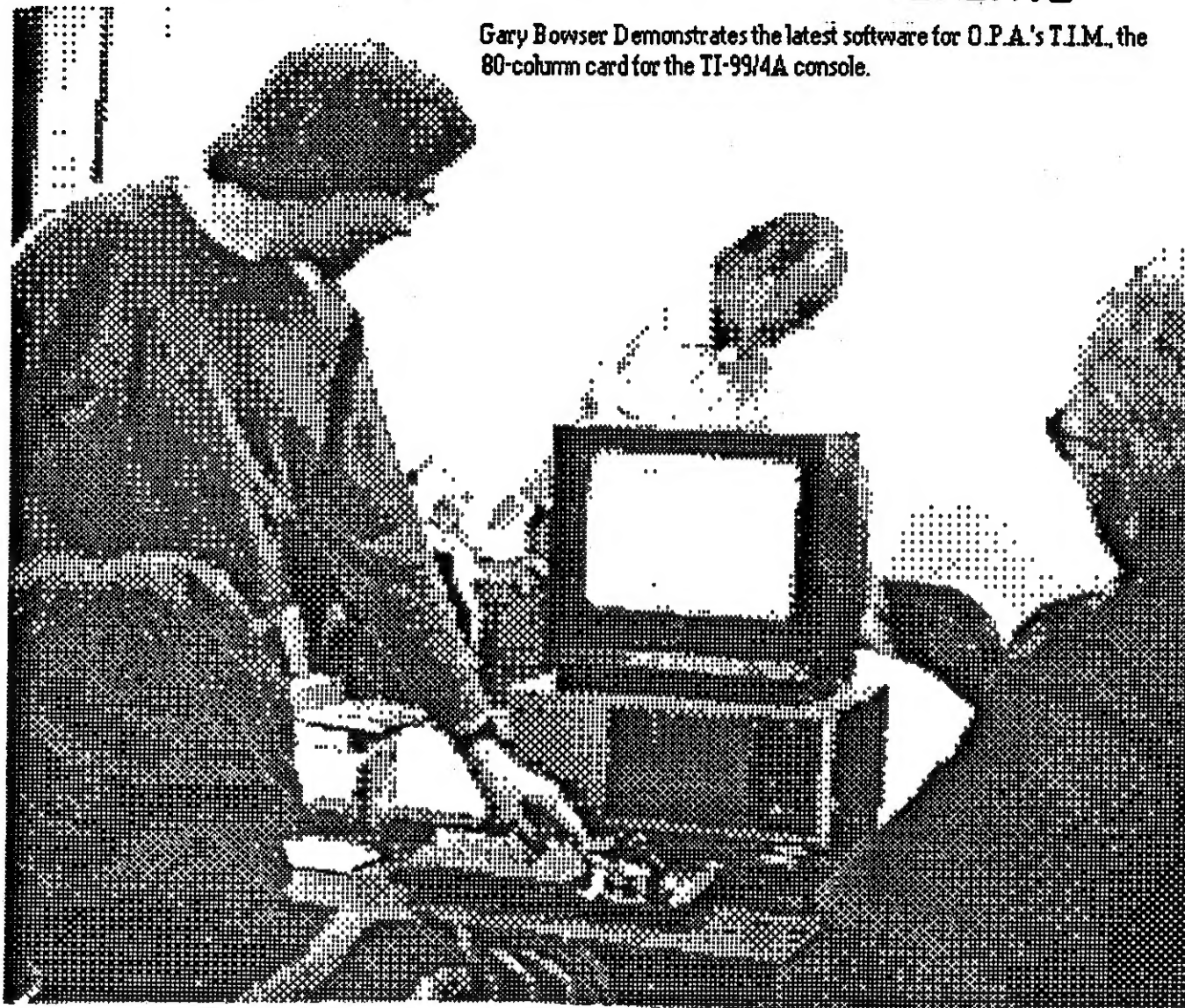
MARCH 1991 ISSUE

**EXCHANGE NEWSLETTERS PLEASE
NOTE NEW MAILING ADDRESS!**

Texas Instruments
**USERS GROUP
TORONTO**



Gary Bowser demonstrates the latest software for O.P.A.'s T.I.M., the 80-column card for the TI-99/4A console.



**FROM:
9T9 USERS GROUP
15 KERSDALE AVE.
TORONTO, ONT., M6M-1C9
CANADA**



1991

The gigantic computer took up the whole of a monstrous wall, completely dwarfing the two tiny mathematicians standing before it. A sliver of paper had emerged from the vitals of the computer, and one mathematician, after studying it gravely, turned to the other and said, "Do you realize that it would take four hundred ordinary mathematicians two hundred and fifty years to make a mistake this big?"

JANUARY

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Circled are the 9T9
Meeting Dates for 1991

OCTOBER

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Circled are the 9T9
Meeting Dates for 1991

9T9 USERS GROUP

9T9 USERS GROUP EXECUTIVE COMMITTEE

PRESIDENT Steve Mickelson (657-1494)
VICE-PRESIDENT Neil Allen (259-5606)
SECRETARY/MEMBERSHIPS Randy Rossetto (469-3468)
TREASURER/OFFICER AT LARGE Cecil Chin (671-2052)

LIBRARY DIRECTORS

Gary Bowser (960-0925)
Andy Parkinson (275-4427)
Steve Findlay (416) 727-6807
Erik Wiklund (416) 627-4558

NEWSLETTER EDITOR

Steve Mickelson (657-1494)

MEMBERSHIP FEE'S

FULL MEMBERSHIP..... \$30.00 / year
NEWSLETTER SUBSCRIPTION..... \$20.00 / year
DISK OF THE MONTH subscription add..... \$30.00 / year
(Delphi Memberships add \$3.00 for credit card fees)

All memberships are household memberships. A newsletter subscription is only for those who do not wish to attend meeting, but wish to receive our newsletter and have access to our library. You are welcome to visit one of our general meetings before joining the group. If you wish more information contact either our president, in writing, at the club address on the front cover or by phone.

The meetings are usually held on the last Thursday of each month, (exceptions are December's meeting date, usually mid-month and the months of July and August, when there are no meetings. Consult this issue of Newsletter 9T9 for the date and time of the next meeting. Meetings are usually held in the lecture room main, at Canada Remote Systems, 1331 Crestlawn Dr., Unit D, Mississauga, (Eglinton Ave./Dixie Road Area), from 7:30 - 10:30 PM.

BBS

The 9T9 Users Group supports the Toronto BBS, The TI Tower BBS # (416) 921-2731, 300/1200/2400 BPS, 24 hrs. Sysop. Gary Bowser.

MAILING ADDRESS:

9T9 Users Group, 15 Kersdale Ave., Toronto, Ontario, M6M 1C9, Canada

COMMERCIAL ADVERTISING

Any business wishing to reach our membership may advertise in our newsletter.

The rates are as follows, (width by height):

FULL PAGE (7 1/2" x 10") \$30.00

HALF PAGE (7" x 5") \$15.00

QUARTER PAGE (7" x 2 1/2") \$7.50

Please have your ad's camera ready and paid for in advance. For more information contact the editor. Don't forget, that any member wishing to place ad's, may do so free of charge as long as they are not involved in a commercial enterprise.

NEWSLETTER ARTICLES

Members are encouraged to contribute to the newsletter in the form of articles, mini programs, helpful tips, hardware modifications, jokes, cartoons and questions. Any article may be submitted in any form by mail or modem. We welcome the reprinting of any article appearing in this newsletter providing credit is given to the author and 9T9. If more information is required, call the editor. The names 9T9, Nine-T-Nine Users Group, 9T9 Users Group, and Nine-T-Nine Users Group are Copyright, (c), 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, by the 9T9 Users Group of Toronto, Canada, all rights reserved.

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ZIPPY PRINT

2372A Yonge Street
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Fax: (416) 440-1794

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Toronto, Ontario M5H 3T9
Tel.: (416) 367-1050
Fax: (416) 367-3275

TIDBITS

#47



**-By Steve Mickelson, President 9T9 Users Group
Compuserve 76545,1255; Delphi SMICKELSON; GENie S.MICKELSON**

Secret Budget:

At our last Executive meeting Cecil Chin gave me a disk, which was suppose to have the latest treasurer's report, but alas, there was nothing on either side of the flipple disk. Perhaps next month!

Exchange Newsletter Reminder:

It appears that several newsletter exchange editors, have yet to take note of the new mailing address! If you start getting your newsletters returned, you'll know why. I hope that more of our members have noted a change, otherwise their renewals will be lost!

Ottawa TI Fest:

Ottawa TI Users Group is planning to hold its 6th annual TI Fest, again at Merivale High School, 1755 Merivale Rd., at the corner of Merivale and Viewmont Rds., Nepean(Ottawa), Ontario, on Saturday, April 27, from 10 AM to 4:00 PM.

For more information, contact Bill Gard at (613)523-9396(H) or 994-8720(W) or write:

*Bill Gard
3489 Paul Anka Dr.
K1V 9K6, Ottawa
Canada*

Trojan Horse Reported:

A recent report surfaced on the TI Forum, on Delphi, that a reported "Trojan Horse", has been discovered in Telco, no version number was specified. The software bug apparently causes the disk drive to wipe files off the drive, while downloading. If you have a good version of Telco, I'd suggest sticking with that copy. If you intend to upgrade, then do what you should have already and pay the Fairware fee to Charles Earl and request the latest version from him.

John Birdwell Trust:

John Birdwell's widow has announced that monies collected from Fairware donations for Disk U and other software, written by John Birdwell, plus proceeds from the sale of his Geneve system, through the Chicago Users Group, will go towards a trust. The trust funds, in turn, will be used towards an award, to be presented to an individual within the TI community, in recognition towards that individual's contribution for us Tiers.

Any memorial donations, may be donated in memory of John Birdwell, to the local Cancer Society.

In my opinion, the first John Birdwell Memorial Prize, should be awarded to our own Gary Bowser, for his contributions to our community. I doubt if any individual has sparked more excitement through promised hardware and software and delivered the goods, as promised, with minimal delay or cost hikes. I think that the TI Image Maker, (aka TIM), is already the hands down candidate for "Product of the Year". 1991 promises to herald a new and exciting year for the TI community, and Gary's company, O.P.A., will be well doing much to lead the way!

Modem Woes:

After I expanded my system, one of the first peripherals I invested in, was a Signalman Mk VII, 300 Baud modem. I had this before I even had purchased 32K memory expansion, a printer or even Extended Basic!

I used to video tape my accesses to The Sources TI Net, as I had no printer and hadn't, yet, figured-out how to spool screens to disk, using TELI. The good old days!

Since then I upgrade to a Volksmodem 1200, later to a CEI Supermodem, (2400 BPS), and finally to a ZOOM V.42BIS modem. My problem is in the differences between the CEI modem, which supports the V.22 protocol and the V.42 ZOOM modem, which has built-in support for the MNP 1 through 5, error correction protocols. For a home business, I use an AT clone, with Telix software, which allows me to access Compuserve, Delphi, GENie and Canada Remote, with no problem.

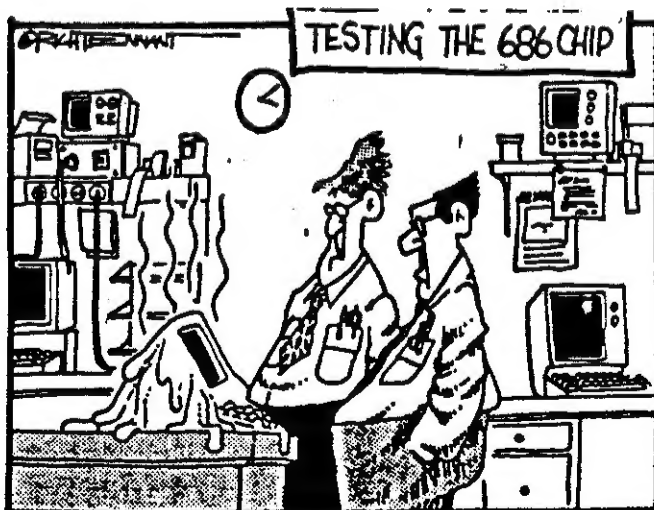
However, using a switch box, I toggle the modem to the TI RS-232 card in P-Box, and find that I can access Delphi and the TI Tower BBS, with no problems, but unable to get past the "CONNECT" for GENie, (at 1200 BPS), or Compuserve, (at 2400 BPS). I am using the same cable, that I used with the CEI Supermodem, with DIP switches on the CEI modem set for what is called Auto Reliable 2400EC and DTR (always ON). CD(Carrier Detect), CTS(Clear To Send), and DSR not always On. The 2400EC supports MNP 1 through 4 error correction protocols.

The modem will indicate CONNECT 1200, for GENie and CONNECT 2400, for Compuserve, at their respective access nodes. But when I try to get a logon prompt by hitting HHH, for GENie, or ^C, for Compuserve, the system just hangs there. Since the modem accesses both services, with the AT clone, but only Delphi and a local TI BBS, with the TI RS232, I am at a bit of a loss, why I can access some lines, but not all? If anyone has an idea about the differences between the V.22 and V.42 type modems, which may cause such a situation. Or an idea, as to what switches, (all are software switched on the ZOOM modem), I must select or de-select, in order to allow my TI RS-232 to access GENie and Compuserve, please let me know.

Ontario Computer Fairs:

Starting this month and for the next two months, we will be running ad's bearing a discount coupon to the Ontario Computer Fairs. This genetic fair, is a perfect opportunity to buy computer peripherals, such as modems, disk drives, printers, diskettes, or paper at greatly discounted prices. The 9T9 Users Group will man tables at three upcoming Fairs, one in April and two in June. The next fair is on Sunday, April 28, from 11:00 AM to 4:00 PM, at the Newmarket Community Centre, at 221 Cedar St., which is in downtown Newmarket, 1 block east of Main St. Use the included coupon for \$1.00 off the regular admission or help man our table for an hour or two, and get in free!, (contact any 9T9 Executive for more details).

That's it for this month, out of space and time!



The following Extended Basic Program comes from Delphi:

```
100 | Conference Pre-Editor
110 | A sorry little program
120 | by Jeff White to aid
130 | conference editing. No
140 | error trapping because
150 | is SLOW enough already
160 | without many features.
170 INPUT "INPUT FILE? ":I$
180 INPUT "OUTPUT FILE? ":O$
190 OPEN #1:I$,INPUT
200 OPEN #2:O$,OUTPUT,DISPLAY ,VARIABLE 80
210 N$="Q>"
220 IF EOF(1)THEN 340
230 LINUT #1:A$
240 P=POS(A$,"> ",2)
250 Q=(ASC(A$)-46)*(P>1)
260 IF P THEN 270 ELSE 320
270 S$=SEG$(A$,1,P):: IF S$=N$ THEN 280 ELSE 300
280 PRINT #2:SEG$(A$,P+1,LEN(A$)-P)
290 GOTO 220
300 N$=S$
310 PRINT #2:CHR$(13)
320 PRINT #2:SEG$("< ",1,Q)&SEG$(A$,Q+1,LEN(A$)-Q)
330 GOTO 220
340 CLOSE #1
350 CLOSE #2
```

MAKING A NEWSLETTER 101

-By Steve Mickelson, Toronto 9T9 Users' Group

Preface...

In the world of a computer users group, nothing can be more challenging and creatively fulfilling as editing the groups newsletter. As editor, one is privy to much of the latest news and information available. The fact that it concerns ones hobby is merely "icing on the cake", as it were.

Editing a newsletter can truly be a love-hate relationship, many times thankless or criticized, offset by the odd compliment or acknowledgement. For those who criticize, try to "walk a mile" in your editor's shoes, before level any complaints. After all, like all the rest of your user's group, he is a volunteer, doing you and your group a favor, in a job which may not be well-understood, part of the reason for this article.

I hope that having read it, if the reader is just starting a newsletter or planning such an undertaking, that I can pass along an idea or two about what the position entails.

For the others, is the hope that there are a few useful ideas, incase you want to publish a pamphlet, booklet or publication, whether for your TI Users Group or for some other purpose. At the very least, perhaps you'll have an understanding as to what's involved in producing a monthly newsletter.

My story...

How does one gets into the position of editor? The fact that my father was a public information officer for the U.S. Air Force, and also edited newspapers, which eventually led to civilian newspaper jobs, and then onto radio and television writing and production, may have had more than a minor influence upon my own journalistic interests.

I first purchased my TI, primarily to get a "game machine", which would help to improve the computer literacy of my family, which at that point was absolutely nil. As I my system was expanded, and I progressed in learning the TI computer, I found that books helped a little, but the acquisition of a modem and a subscription to **The Source**, opened a wealth of software and information courtesy of TI Net, at a price, however.

Still, I felt that a telephone link was a poor tutor in the finer points of utilizing most of the software for my TI. I had read of the **9T9 Users Group**, but was a bit intimidated, recalling that in college the Computer Science students were very much into Fortran and Cobol, and felt that the **9T9 Users Group** would entail much the same topics. A more logical solution would have been that a computer users group for a computer as user-friendly as the TI-99/4A, would, also, have "user friendly meetings"!

Finally, after a difficult time trying to figure the nuances of TI LOGO II, (I actually thought that the RS-232 output would print LOGO graphics, not just procedures, to my printer), I joined the **9T9 Users Group**.

It was great to find others who actually suffered the same hardware and software concerns as I, and, (better still!), had found solutions for them.

When time came for our former president to move on, (actually abandonment was more apt description), I volunteered to take over the job, for reasons purely of a selfish nature! It would be a perfect opportunity to hone my word processor knowledge on **TI Writer**, as well as to pore over the various newsletters exchanged from users groups. Also, I felt I could improve on what the existing publication. I even had in-mind an appropriate name for the publication, **Newsletter 9T9**.

This is a lengthy autobiographical sketch, can just show you that just about anyone can, given enough motivation and encouragement, edit a newsletter. Do not fear, if you do something wrong,

I can assure you, someone will let you know!

When we first married, my wife expressed concern about her (lack-of) culinary skills, to which my older sister wisely consoled her, "If you like to dine, you'll learn to cook!" Advice which I can attest was both wise and correct, as Sophie is now a "black belt" in the culinary arts! In the same vein, if you like to read about your hobby, you'll learn to write a newsletter!

Starting Out...

Let's start out by looking at your club's newsletter, what do you like about it? If it were in your power, what would you like to see changed or improved?

You must have an outline or recipe as to what to have for content, and as with cooking, the culinary skills required to prepare the main course, (newsletter), will come in time.

The newsletter requires a dedicated individual, willing to spend time each month, which can be upwards of ten or more hours, to read, gather, edit, print, paste and copy a newsletter of consistent quality and format. That individual must be able to encourage original submissions from fellow members, adhering to a strict deadline.

It is helpful to have some knowledge of the interests of your readership, don't rely strictly from attending members, as what they want to read may or may not reflect the interests of the majority of the club readership. Reading TI magazines like old issues Home Computer or MICROpendium, can give you some clue for content.

News, tips, letters and replies, tutorials, program listings, hardware projects, library listings, news releases and a dash of humor, can all make for a well rounded newsletter. All of this, must be taken into consideration with the fiscal and equipment limitations of the individual producing the newsletter and the group's financial resources to support the task.

Purpose...

The newsletter should provide information and communication to its membership. It helps to have club members, who are willing to contribute, in the way of writing articles for the newsletter. It is very easy to get caught in the trap of being both club editor and chief scribe, which takes precious time from the prime objective of producing a quality publication on time.

Too many clubs have editors quit due to "burn-out", more from the "heat" of both writing out club news and then editing that news, than just the latter. And editing the newsletter should be all that a newsletter editor does. I can recall an executive or two, where a topic of discussion was closed with "we'll have Steve write that in the next issue of the newsletter", not realizing that this passing of responsibility onto the newsletter editor is just fanning the "flames" that are may burn-out the newsletter editor!

As newsletter editor, one must be prepared to say, "If you want to see it in print, then YOU write it out!". Be prepared for resistance to such a suggestion, as it's human nature to get someone else to do a job, if at possible.

Content...

Try to consider that your readership is composed of users of various degrees of knowledge of the computer. You'll find the power users, hardware hackers, software writers, equally balanced with the regular "load and run" users who just want to know which is the best software to use and could care less about how to use a disk utility to change some attributes of program code. Both are equally important to the "mix" of a well-rounded club, and neither should feel ignored or left out.

Sometimes it is good to have a theme issue, such as one with a group of either reviews or tutorials all on the same topic, (such as word processor software, spread sheets or telecommunications programs).

Another interesting feature is having articles or reviews of contrasting views or opinions. This can provide balance.

Printing-out a program is appreciated by the reader. This is especially true if you have an article about some program or computer language, and happen to have a related program that the reader may type-in himself. Or have an program related to the theme of the issue or the time of the year.

Also, don't be afraid to express your own editorial feelings, but be open enough to publish opinions which differ from yours. Have an open mind, not only to content, but to constructive criticisms of the newsletter. Be aware, that sometimes criticism sometimes comes from individuals who have never had to put together a publication together under "the gun" of a deadline, and may suggest an "improvement" which would be great, if only it did not add another five or ten hours to your production time. Try to be grateful and courteous to such individuals, for their next idea may well save you a few hours per month and improve the quality of the publication.

Getting material...

You'll be surprised how much material and news is produced for the TI, each month. There is enough for our group to produce a 20 page newsletter, ten times a year, and still have material left over!

Exchange newsletters are a good source of material. If a club member owns, or has access to a photocopier, to make a few copies each month, it is merely a matter copying the article from another newsletter. If no photocopier is available, then a volunteer willing to transcribe articles is the next best alternative. If, you are a two fingered typist, as I am, such help is a virtual necessity.

Most groups, have a few members who use a modem and access BBS' and/or commercial databases, such as Compuserve, Delphi or GEnie. Here, you can find a large source of material that can be downloaded and printed out.

And there are club members within you group, who feel very strongly about the merits,(or lack-of), in some hardware, software or publication, that he/she will speak-out; tell him/her to "put it in writing", so others can benefit from your knowledge.

Logistics...

Desktop publishing, per se, for a newsletter editor whose production schedule includes a couple of free hours here and there, is not practical unless he has all his material, both text and graphics, already on disk. Even the more sophisticated computers with the ability to scan-in diagrams and pictures, require time and a level of expertise, not possible for the majority of editors. Besides, a photocopy of an article, is far less susceptible to transcription errors than a photocopy.

In short, a printer, expanded system with a word processor, and access to a photocopier are a good start. A newsletter subscription of about \$20.00 per annum, will provide support the production costs and postage for a 18-20 page newsletter, so long as the membership is more than a couple of dozen members. From the (subscription) membership fee, we pay for the commercial copying costs for 80 or so issues per month. The originals are paste-ups,(more about that later), or camera-ready originals, which are copied in a two-sided or duplexed format on a high speed photocopier.

The photocopies are brought to the monthly meetings, where members in-attendance pick-up their own copies to save on postage costs. Exchange newsletters are sent to other clubs, quarterly, to again save on postage costs.

To further save costs, photocopied articles may be photo-reduced, if that feature is available, to save paper. Print-outs of articles can be made in a smaller, compressed type set. To save on postage the newsletter can be printed on lighter weight papers stock, say #18,(9M) or #16,(8M), stock, instead of #20,(# = the "pound-weight of paper, where #20 or 10M is average.

Cut and pasting...

Because this the most critical part of newsletter production, it can also be the most time consuming, provided you want to make a reasonable good product. I can spent upwards of fifteen hours a month doing an 18-page newsletter, half of that on the cutting, laying-out and pasting the pages.

In spite of the hype of Ventura and Page Maker fanatics,(or Page Pro or Funnelweb, for that matter), I feel the quickest and easiest way to produce "make-readies", or originals that are used as "masters" at your local photocopy print shop, is the old "cut and paste" method. Unless you are a fast touch typist, or have access to scanning input devices, it is easier to photocopy some articles and print-out local submissions. For purposes of aesthetics and to get a consistent lay-out, it may be necessary to cut out the articles and paste them onto a sheet. This may be far more desirable, than printing-out a proof, then re-editing the type and laying it out on-screen, until you get a satisfactory end-product. The latter technique may require a multitude of print-outs until you get a satisfactory end-result.

To make for uniform easy lay-out, I use an 80-column letter size page lay out, with a staple in the upper left-hand corner. If I have a print-out in the landscape, (sideways), instead of portrait, (vertical), mode I place the top of the landscape page in the left margin for both even and odd pages so that the reader can put the newsletter in one position and flip each page without flipping the newsletter back and forth.

The lay-out can be made on the "figuring paper", which is the paper that has light blue, 1/4-inch(6mm) squares on one side only. This paper, sometimes used as graph paper, comes in pads or loose sheets of 100. Using a pane of 9" by 11", (or larger), pane-glass, (taken from a picture frame or other source), and using desk drawer capable of supporting the glass and allowing a small light source to be placed inside the drawer or box, and the paper can be clipped to the glass with a clothes pin, you have a poor man's "light box" for "paste-ups". In addition you will need a glue-stick, scissors and liquid paper.

I use 12" by 18" glass pane, supported metal wire frame used to support folders in a filing cabinet. Under the pane, I use a small fluorescent light source and a black metal document spring to clip the sheet of figuring paper grid-side down. This is very important, as you do not want an image of the grid squares on your copies. With the lamp on underneath the sheet, you can see the squares through the sheet. These visible squares allow you to lay-out articles and illustrations, and using the glue-stick, paste them on the paper, so that margins are uniform and even.

Any residual glue or marks may be touched-up, using liquid paper. When these originals are placed on a photocopier, the blue grid is on the backside of the sheet and therefore not visible. Copies of these paste-ups can be made, to run on a high speed copier. I knew of one party who used the window of an oven, with the internal oven light on, as a light box for paste-ups.

Tips and Hints...

Hint 1: If you use an incandescent lamp as a light source, take precautions for the heat build-up, such as don't put an incandescent lamp in a cardboard box.

Hint 2: If you use a glue stick, use it sparingly, a little goes a long way. Two sizes, for small and large pieces of paper is desirable. Be sure to seal the stick well, when not in use, as even the largest sticks seem to have an under supply of glue.

Hint 3: If your light source is too bright, and you cannot go to a lower wattage value lamp, then placing onion skin can act to reduce glare and provide uniform light.

Hint 4: To save costs, you could get a sheet of regular graph paper, having black lines or a photocopy of regular figuring paper onto a thin sheet, (#14 or 7M or less), to get a black grid on translucent paper. Then take this sheet and tape it grid-side up to the underside of the glass, so that the grid is visible. Then you may use regular paper for paste-ups. (The only draw back is if the paste-up page and the sheet under the glass don't line-up, your paste-ups may end up crooked).

Hint 5: If the text for the paste-up is taken from another newsletter and is already a second or third generation copy already, (and be very dark already), you make set the copier to a "lighten copy" setting, to get a make-ready consistent with the rest of the newsletter.

Hint 6: As suggested by club member, Cecil Chin, you may want to offset all odd pages to the right and all even pages to the left, so that the newsletter may be "3-hole punched" and placed in a binder, without losing any of the print.

Hint 7: If you are photocopying a rather lengthy article, you may photo-reduce the pages by 77% or less and place two pages side-by-side in landscape mode.

Hint 8: If you have a daisy wheel printer or have a dot matrix which cannot print Near Letter Quality, (N.L.Q.), in compressed mode, you can make your paste-ups, (using legal size grid paper and an appropriate glass pane), on larger paper and photo-reduce them by 77%, to get a reduced N.L.Q. original make-ready.

Hint 9: The front cover, (page #1), can have the mailing address of the club on the lower half, to allow the newsletter to be folded in-half, sealed with an adhesive label or two, (making certain to cover any staples, which can pose a hazard to the mail carrier or anyone else handling the mail).

Hint 10: Use extra utilities, such as spell checkers, to help proof the articles before you print them out.

Hint 11: Make a disk of graphics, title page, page headers, cover page, etc., so that you reuse them or modify them and not retype the same thing in every month.

Hint 12: Try to label the page numbers, especially if you get the newsletter printed commercially. Pagination can save a lot of grief, in case you or the photocopier operator inadvertently get the original art work out of order.

Hint 13: Try not to edit, write or cut and paste articles when you are tired, (hard to take advice near the deadline), so as not to make careless mistakes, which, if caught can add to your workload and, undetected, detract from the overall appearance of the publication.

Hint 14: Humor can add spice to a publication. Try to include articles, cartoons or jokes, to give comic relief to a publication!

Hint 15: Have consideration for readers and other newsletter editors by producing good readable pages. There have been a number of times I read an interesting article, but have not reprinted in my newsletter, because the original was printed out on a printer with a weak ribbon or the copied page was too dark or streaky. Who wants to read, let alone reprint a publication unreadable in the first place!

Hint 16: Try to have on-hand a number of articles in advance for slow months, or the odd time when you find not enough time to get together a complete article from scratch.

Collating the pages...

When you have completed your cut and paste originals, take time to proof read them, not only for spelling errors, but check out the appearance. Now is the time to fix any mistakes, or if necessary redo any pages.

When you have completed making a set of make-readies, you may then proceed to your local copy shop and have your copies made. If you don't have a good quality copier, at home, then for a nominal charge, the copy center can do it for you.

Be sure to ask for your "art work" or paste-up originals incase you ever want to reprint part or all of the newsletter later-on.

Added Touches...

Now that you have put out your first publication, try to improve each issue in form and content. An index or editors page highlighting the contents of each issue. Or, a periodic issue with an index of topics for preceding year is another.

Don't forget to get corrections, updates, etc. to articles in next issue, if possible.

Now sit back, take a break, but not too long, for though you've managed to get the job completed, another month and another deadline now approaches....

Acknowledgments...

I hope you find this article interesting and useful. I have had the idea of writing this down over two years ago, then Harry Brashier began his series on publishing with the TI-99/4A, which I felt was an informative and useful publication. However, the Brashier series, while covering a lot of ground, seemed more geared to those familiar with desktop publishing, requiring some knowledge of getting a publication.

I felt there was a need to inform and help the novice, who finds him/herself in the same situation, that I found myself, when I started out as newsletter editor. Back in August 1986, I was appointed as newsletter editor, with a lot of ideas as to what would improve our newsletter, and not much idea as to how to bring these ideas to fruition.

I want to thank Tom Jakabfy, of the Oshawa TI Users' Group, (OSHTI), for asking fellow newsletter editors to write, just how they do a newsletter.

I want to thank fellow 9T9ers for their support, encouragement, ideas, criticism, and newsletter contributions, (hint, hint), over the years. Also to all those other editors whose creative ideas I adopted for this publication, to continually improve Newsletter 9T9.

Especially, I want to thank my wife, Sophie, and children, Athena and John, for allowing me the time and having the patience and understanding, when dad is stuck at the old keyboard working on the newsletter working on the newsletter.

Finally, if having read this article, you come to some understanding what's involved in producing a newsletter, why not show your appreciation not by patting your editor on the back, he/she might already be quite sore from writer's cramp! Instead, why not fire-up your computer and write down what's your favorite piece of software, what is the best upgrade or addition you ever made for your computer system, what piece of hardware or software you would like available for the TI world, who is the most interesting personality you've met in our community, a favorite tip, etc. In short show your appreciation to you newsletter editor, by way of an article for the newsletter, take my word for it, your editor will value it as the best possible acknowledgement!

Steve Mickelson
9T9 Users Group
15 Kersdale Ave.
Toronto, Ontario
M6M 1C9, Canada

TODAY's Quote of the Day

Investment in reliability will increase until it exceeds the probable cost of errors, or until someone insists on getting some useful work done.
- Laws of Programming

Delphi members in attendance:

XIRTAM -- Michael
JERRYC -- JerryC
CYNTHIA
RONWALTERS
CAL47 -- Cal Z
TIMET -- Gary/OPA
EICHER -- Jeffu
JHWHITE

<Michael> Well, I'm back. I am a sysop and it requires running down to the bbs and doing some system stuff. Well, before we begin, is there any preliminary stuff to get out of the way?

<Jeffu> Unless you have anything to say, Mike, we can start taking ?'s.

<Michael> OK. I will begin with a short statement of what I have been doing. This is my first conference on Delphi. I did a couple on CompuServe, but things just seem to be fizzling out there, and everybody is jumping on Delphi's bandwagon. Well, I am not one to stay behind! I have several projects in mind for the TI and Geneve, and I hope to bring more years into the TI community.

I will start by telling you all a little about myself. I am 23 years old, 6 foot 6 inches, about 220 pounds. I am attending Illinois Institute of Technology, majoring in computer science. I expect my bachelor's degree on May 27th, 1991. My work on the TI began when I was in high school and continues to this day.

I was very interested in programming and was completely self-taught up until about 1985. I bought my beige console for \$49.90 from a local K-mart and slowly expanded it. The floodgates opened when I joined the Chicago TI users group. It is a wonderful source of information and inspiration and gave me a will to continue with the TI and, now, the Geneve.

I wrote a small word processor in Extended BASIC, and it needed some speed, so I learned some assembly language. This coincided with the VAX assembly language I was learning at school, and I quickly learned just how powerful the TI can be. Soon after that, I wanted to write a program that would allow me to be more compatible with the DOS environments that I have been working with over the years: CP/M, the p-system, and MS-DOS. I wanted practical experience in writing a command line interpreter.

So after building my own supercart, I wrote FIDOS from scratch, inspired by Jim Berk's Megaload program. I wanted to interface all programs that I had with FIDOS and have an environment to program in like the MS-DOS computers, or the Geneve, or the VAX at school. FIDOS became a big project, and I spent about a week writing the code. The files that make FIDOS take about 200 sectors on a disk, and all that in a WEEK! But it didn't burn me out.

I wanted to do more with the TI -- mouse support for example. I picked up an IBM serial mouse and, with a custom RS232 scanner, on my own, I figured out its encoding to make it compatible with TI Artist. Before that, I had interfaced a Radio Shack analog mouse to my ADE clock card -- and that was an interesting project -- but the serial mouse could be used by everyone that had a serial port. That is where the ASGARD MOUSE came from.

And finally, my current project bloomed about a week before the Chicago TI faire in 1989 after I bought a cheap MIDI keyboard at Montgomery Ward and got a book on MIDI. I decided to make the

interface myself and write the driver software, and I wanted to surprise everyone at the faire -- what a stir that caused! The phones haven't stopped ringing since then, but the MIDI system has long evolved since then. Converted from Extended BASIC to assembly language in cartridge form, it is my most comprehensive programming project, yet, and has required much thought and innovation to provide a memory-efficient MIDI sequencer for the TI and Geneve.

Soon, I expect a few more pet projects to become reality, and I hope to set a new standard for software production on the TI with a standard for a minimally equipped system for running next-generation software (like Telco). I hope you like my products, because I am writing them with my own uses in mind, and I am making them to satisfy the TI'er who has gone long without what other computer owners have taken for granted for so many years. The TI is a powerful machine, and MUST be fully exploited.

I hope you enjoy my talk here. Also, I would like to try this again, when we're done! I am ready for questions now. Just fire away!
<JerryC> Chris B told me there was still some development room for the MIDI project -- stereo or additional voices or some such -- care to comment on that?

<Michael> There IS more room for development on the TI MIDI because we are using a cartridge, and I still have lower 8K to work with and still allow for 24K of tokenized music. We are trying to make a most useful sequencer, not just minimal. Without Chris' suggestions, it would have required add-on software even though the system is almost fully completed now. Only small things are changing now, for Chris and I DO know what the final specs will be.

Remember, the stereo output is controlled by your MIDI keyboard, which is controlled by the TI. If your keyboard supports stereo, then it will work fully with the TI. Remember, the MIDI sound is professional, and does NOT come out of the monitor speaker! It comes from the keyboard's own sound generating equipment and may be directed to a stereo amplifier. MIDI is simply the "nervous system" connecting the brain of the TI with the "brawn" of the keyboard.

This serial cable is a high-speed cable in current loop fashion and simply communicates messages to the keyboard to tell it to turn on/off notes, to change instrument selections, rhythms, etc. -- essentially anything that could be done by pressing the buttons on the keyboard to do that. Your TI will automatically do that in timed fashion, to give great musical performance.

The software specs currently are as follows:

16 monophonic channels available for 16 poly system imbedded program change
selective track record/play
dynamic program patching
save/load in program image format
a music compiler that will quickly (!!) compile music "source" code into internal tokenized format, to be later saved in program image format

The compiler works flawlessly, and the major functions of the software are complete. We have decided to add a program image file loader for assembly programs, plus a menu-level enhancement loader for future expansion. In addition, you can customize the system for loading from DSK.MIDI. (volume type loading) and also screen color delay speed, and printer port. Planned utilities include type 0 file to CakeWalk file conversion, a separate CakeWalk compiler, and music print utilities. The program can easily be linked to your assembly language programs because the cartridge provides most of the features of the Editor/Assembler loader and can be branched in and out of for

a MIDI-level music programming shell -- similar to the way a program could branch directly back to DOS without resetting the system -- requires only sector-editing of your favorite programs, like Disk U, or Telco, or Archiver. All can be interfaced with this software, so that it becomes an integral part of your development system.

<JerryC> Does stereo double the bandwidth requirement?

<michael> There is no bandwidth on MIDI, only serial data transfer. Bandwidth is only a function of your particular keyboard, but it is not a defined concept in MIDI.

Remember, MIDI is only a system for transporting messages, NOT music in any form -- digitized or otherwise. MIDI simply allows you to turn on and off notes, and interface to the system easily. You don't have to know anything about music or audio to use MIDI. Just plug it into your keyboard and go. If your keyboard has stereo jacks, then plug them into your home stereo system or a mixing console and recording system -- whatever you like.

<JerryC> I mean in the sense of serial bus rate -- communication bandwidth.

<michael> The serial rate is fixed at 31250. That is MIDI 1.0 standard. You don't have to increase communication bandwidth to get stereo. Your keyboard's sound generators produce the stereo output through its speakers. MIDI is simply a standard, like RS232, and it is non-varying throughout the industry. That is the purpose of MIDI, to provide a connecting link between drum machines, keyboards, and personal computers.

<Jeffu> Will MIDI files from other computers work with your MIDI system? I know you used some IBM MIDI files in your Chicago demo last year. I.e., is there a file-type standard?

<michael> Yes, IBM MIDI files will work. They need conversion, though. The standard we defined as type 0 is the memory efficient, non-IBM-compatible style -- only two bytes per note to represent the note and timer value. Cakewalk files (and others) use a 5- and 6-byte per note format which significantly cuts down the size of files to be used with the II, but you can halve your music and have a chain of music files on a RAMdisk, for example, and can quickly load and play them. Cakewalk is known as a type 1 file, and I am working on the type 1 compiler for the II and Geneva as a final project to finish the MIDI system.

<Jeffu> Those keyboards that accept one-key chords -- does MIDI handle that?

<michael> Yes, as long as you know the message to activate the chord. Some keyboards (like Yamaha DX7) can be programmed via MIDI to recognize a MIDI macroinstruction to activate the pre-programmed steps -- like multiple notes, chords, etc. But normally, as on my Casio MT240, they must tell the keyboard to play the notes individually, although they may be turned on all at once. So you can effectively do what the keyboard is built to do with a little tone recognition (by your ear) and a little programming!

<JerryC> Still fumbling with stereo -- can you allocate two mono channels to the same device? (to get stereo)

<michael> You mean to get polyphonic? I am not talking monaural when I say MONO, but "one note per channel." You have 16 channels available, and all of them can have one active note each, for a total of 16 notes at once. And the 16 notes can be further divided among the instruments of your choice, such as channels 1..5 on piano, channel 6 on bass, channel 7..11 on percussion, channel 12 on saxophone, and channels 13..16 on brass ensemble. So you can get 16-note chords.

You can even assign the channels to MIDI channels to transmit to many different KEYBOARDS or drum machines using a MIDI through box -- but I meant MONOPHONIC, not MONAURAL! Certainly MIDI does not restrict you to one note per channel. You can have many notes per channel -- an infinite number.

But to implement this on the II would require a little modification. I still could do it, if I have the idea to. A small bit would be set to indicate a string of notes to be turned on at once, within a

channel, and later, all off. At their respective timer expirations...

Well, you've got my brain rolling again!! I just may change the specification to allow that. I can do it with 3 bytes per note, and I can probably add a few more features. Thank you for the inspiration! It won't take long for that to happen either!

<Cal Z> Are Commodore 64 (commodore) files available as type 1?

<michael> Well, I haven't looked at them, but I should locate some. Perhaps you can mail some of them to me if you have a Commodore MIDI contact. I am willing to convert any type of MIDI file from any machine -- even use the new standard MIDI for the Atari/Amiga.

<Cal Z> My son has access to some. I will see if he will get hold of them for me. If so, I will upload them.

<michael> You want complex music, MIDI gives you a level of professional studio production -- the better your keyboard (Casio, Yamaha, Kurzweil, etc.), the better your sound! I want to get a Yamaha DX7 synthesizer and use it for future music development. My Casio MT240 allows 10-note polyphonic with up to 4 instruments at once, and it has a beautiful sound. Come to the Chicago faire and listen!

I use the software to assign II channels 1..6 to play on MIDI channel I for a six-note poly activation. But I think I have a brainstorm idea to change that and use only one channel to assign an infinite number of notes (polyphonically) for amazing chords and intonation.

<Jeffu> Gary has heard a rumor about the MIDI. Maybe he'll ask about it.

<michael> Spill your guts, Gary. Let's hear it!

<Gary/DPA> The rumor I heard around town was the MIDI for the II would not be as great as first thought, and would be limited due to the 4A speed and memory.

<michael> Well, it is greater than first thought, but Chris was reading on "standard" MIDI sequencers and made the specifications known before I could even create them. He has further clarified his knowledge of what our sequencer will do, and we have made adjustments for the II's speed and memory. For example, I thought I was unable to do much about the 8K program size constraint, but we put it in a cartridge, and now I have 16K to exploit. This allows me much more flexibility than I had, and allows even greater expansion than what I thought it would be.

I never realized the MIDI project would get this big, but we are not in the process of cutting down anything. I am adding new things all the time, and I am exploiting fully all of the II's abilities. We still have something to talk about on a cassette-based system. That is probably the rumor, in that a cassette system would restrict the MIDI functions, but would still allow music editing, patching, and recording.

My system REQUIRES disk, 32K, RS232 and the MIDI software. System enhancements only provide further versatility.

<JerryC> Is that limit cassette I/O or memory?

<michael> Cassette I/O. Naturally, the more memory you have, the more music you can store. But in perspective, the 24K portion of the II used to store music will provide plenty of versatility -- about 12000 notes worth!! Most songs use less than 3000 notes, some concertos use close to 10000. An overture like "Poet and Peasant" can be split into three sections or movements, where a slight pause is natural -- and the system can automatically load the next movement from disk.

<JerryC> So a console with 32K on-board + cassette wouldn't be too bad?

<michael> Not really. You could have loading and saving to cassette of music (in program image format) and scanning the MIDI port for keypresses and recording music. You would not be able to use the compiler though. It uses D/V 80 files, which are illegal on cassette. But you don't have to compile every time -- just once -- and then save the music in program format. CSI access requires GPLINK, so I will have to write my own.

RAMdisks are used just as that, a RAMdisk, and they provide instant loading and saving of music files, for nearly uninterrupted music. A 256K RAMdisk with MIDI files on-board would probably provide playing for about 10 hours. You can page in the music files just as you would from floppy.

<Jerry> If you could shoehorn a small RAMdisk into your cart - the cassette system would be pretty good.

<Jeff> Or maybe a side-port cart would provide more options.

<Michael> Well, that is up to Chris. I can support a cartridge RAMdisk, but I don't know what that would do to the price of the system. I can custom write the software for those of unusual system combinations (if you wanted to modify the MIDI cart). It's only an 8K EPROM, you know. That will be arranged through Asgard, but I can do requests, after the MIDI master cartridge is out. Remember, I am only doing the software. I don't have cartridges, and I only have 1 EPROMMER. Chris is doing the cartridges and the cables, and he must ultimately decide what to do. Remember, even cassette users have possibilities, like the 32K/RS232 standalone by Multicom. It would be ideal for cassette, but I would still strive for the disk standard.

<Jeff> 8K RAM is in the cart, also, isn't it? I thought you said 16K awhile back.

<Michael> I believe that only the serious computer user would be interested in MIDI. It isn't a toy, nor is it just an interesting thing to have. It is serious, professional sequencing software.

8K cartridge, plus 8K lower memory expansion bank. That is what I am using to hold the program. Upper 24K is used for music storage, and VDP RAM is used for buffers. So that is 16K total program usage, 24K data usage, 16K buffer and screen.

<Jeff> Okay, not using the 16K cartridge banking.

<Michael> Right, Chris has an EXCESS of 8K boards that he will be using conveniently for this project.

<Jeff> Which keyboards are currently supported in the software package?

<Michael> ALL keyboards are supported which have the MIDI IN and MIDI OUT "D10" plugs -- ALL keyboards!!

<Jeff> Okay, let's move to the Asgard Mouse and MDOS support. How is MDOS 1.15 coming along?

<Michael> 1.15 is the planned ASGARD MOUSE support version. I am writing the patch driver to allow use of Asgard Mouse in MDOS. You use the Video XOP's to access the Asgard Mouse information, just as you do with Myarc Mouse. This is necessary for the Geneve if you choose to go 9958 video -- it does not allow a mouse on the video color bus. So you must use a mouse from somewhere else.

I have all of the necessary tools to do this, and it is the project after MIDI -- probably around the FAIRE. (It might be a surprise to you all!) I am using 114F, but I have a good source for the information from Myarc. There is c99 support for the mouse now, and I anticipate supporting the the MDOS windows program, if it correctly accesses the video XOP's. This will be supplemental software for the purchasers of Asgard Mouse. It will interface to the geneve in a remarkably similar way to the way it interfaces to the IBM clones using a patch device driver.

<Jeff> What are the features of FDOOS?

<Michael> FDOOS is a DOS-like environment Version 2.0 is the current version, soon to be updated. It runs from a RAM device at >6000 to >7FFF and requires an E/A GROM in the cartridge port (a super space). It provides full parsing of command input and has a series of internally implemented DOS commands: CLS, VER, PRINT, TYPE, FORMAT, etc. Commands can be external, and the system supports a printer. It is easy to modify, and the current version of FDOOS is public-domain. FDOOS will execute D/F 80 code, D/V 80 batch files (autoexec type files) and program image files. The code is re-entrant and can provide a shell for programmers. Instead of executing a BLUP a=0000, substitute a B *R11 or a BLUP a=6010 to branch directly back into FDOOS. It can be expanded with memory devices and extended

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supercarts. It will probably be made into a ROM cartridge for the new version, and will be marketed by ASGARD at a nominal price. He has lots of EPROM cartridges, I have none. And the new version is conceptualized as a graphic interface, reminiscent of GEOS for the Commodore. I am researching the steps necessary to do this for the TI, and Asgard Mouse compatibility, but it is all on the drawing board now (for GEOS 3.0).

<Jerry> Will the graphics interface mean dropping the external terminal capability?

<Michael> Probably. External terminals cannot support the TI's graphics system, but I want to explore the external terminal system on a sublevel and still make it available as a "remote host" for your TI. A disk manager and terminal emulator that asks for passwords over a modem line or terminal, and provides access to your disk system remotely. I don't have a graphic terminal, just an 80-column display device (RS232), and it was a nice experiment in development. It still may have uses for that type of thing -- certainly for the geneve -- but programs executing over the RS232 are up to you. It severely cuts your graphic and mouse capabilities and does not allow icons.

<Jerry> An 80-col terminal + FDOOS is a CHEAP way to get 80-columns! \$40-50 for a good terminal.

<Michael> That is true...and that is what its intention was!

<Jeff> Would it be possible to put the MIDI software directly on an RS232 EPROM to have a dedicated MIDI system that can use the cartridge port for something else?

<Michael> Well, if you substituted the EPROM value of 110 baud to the value for 31250, you could have a dedicated MIDI system that could use TI's existing file system to access MIDI using the DSR, but it isn't fast enough for me! I prefer direct load of MIDI data instead of going through the DSR to do it. My code is much faster, and synchronous. The DSR cannot handle the timing of note on/off pairs so you must do that within your program. But MIDI DSR is possible, and probable. I never use 110 baud, and I would be willing to make the change -- requires ripping out the ROM in the RS232 and substituting the...

<Jeff> I meant throw out the RS232 DSR, and just put the cartridge EPROM on the RS232 card instead.

<Michael> ROM for an EPROM.

The cartridge ROM could be adapted for the RS232 card, but then you wouldn't have access to that card for other uses such as modem or Asgard Mouse.

<Jerry> Put it at the second RS232 address.

<Jeff> (I have 3 RS232's anyway.)

<Michael> OK. Well, I am sure that 2 RS232 cards will soon be a common thing. MIDI allows selection of ports 1..4. All disk access would have to be located off-card. It would be designed similar to P-code card, and would take control upon powerup. (It wouldn't allow menu options on beige consoles!) Well, unless there are any more questions, shall we conclude?

<Jeff> Well...what I was thinking, for those who have a cassette system and standalone RS232, they could change the RS232 EPROM to a MIDI EPROM, and put in an 8K RAM cartridge. Makes for a cheap MIDI system.

<Michael> I know of a better system, a standalone RS232 and a 64K RAM cartridge (like George Bowman's) with MIDI system on cassette (requires a separate loader, though, plus no hardware modifications and an un-permanent alteration to the RS232. A cassette user would not have the technical know-how to do such a project. It is possible, but I would not recommend the user do it. It would be better to leave the RS232 as it is, and use software by the present method of access that is provided, cartridge and disk, to fully access the system.

<Jeff> I guess it is time to conclude, or I can think of more ?'s.

<Michael> Shall we conclude then?

<Jerry> Well, bye for now....will visit soon.

<Michael> Thanks, Mike!

<Michael> Bye!

Delphi special guest: Chris Pratt

Delphi members in attendance:

DONEIL - Don O'Neil
CYNTHIA
JERRYJC - JerryC
EICHEN
GREGGRPH
RONWALTERS
VONRICKY
CAL47
LAPEASE
MIKEMCG
NPC - Beery
964ONEUS
LMCCLURE
DOWHCC
JHWHITE - JeffM

EICHEN> Anybody heard of anyone working on a SCSI-Interface?

VONRICKY> Chris, any idea when you'll be shipping?
<Chris> First, I would like to introduce myself as the person who wrote the DSR and diskmanager for ESD's W/F Controller Card. I would also like to give ESD's address for TI-related products:

ESD
P.O. Box 23805
Washington, DC 20026-3805

About the shipping schedule and why it has been delayed from the original November 20th date...

MIKEMCG> Chris, when can I expect my HDC?

<Chris> I have been on vacation for two weeks and I just got back last night. I spoke with Shane Truffer, the President of ESD and designer of the card. He said that the delay was due to a problem in acquiring the Hard Drive Controller chip WD1010A.

EICHEN> Chris, in some of the literature I received it mentioned the board was being made with SMT. This worries me, because of the difficulty in repair. Any chance of normal chips, sockets and schematics?

<Chris> Before I left on vacation, Shane had two options. When I returned I learned that Shane had purchased a new controller chip, the WD2010. This chip is compatible with the WD1010 and will not mean any extra work for me.

As far as a shipping schedule, Shane was not very definite, but I would estimate it to be another 6-8 weeks before everyone has their hands on one. ESD is going to send out several boards before then though. Regarding the SMT, I agree that it is going to be difficult if not impossible for the average user to repair himself, but won't you agree that the reliability of the board will be greater?

[Editor notes that SMT stands for surface-mount technology.]

<Beery> Chris, I know from friends that I can trust, that you are true to your word, but reading messages in the past month, I have seen some misconceptions. Primarily, I would like to know what kind of entity ESD Corp is? Is this their first project? Or what else (non-TI perhaps) do they have to their ranks?

<Chris> Beery, this is ESD's first TI project. I convinced the president to do this one because of my dedication to the TI computer. ESD had been around for five years before I even met Shane.

<Beery> I think the ESD HFDC is fantastic for 4A people, and it continues to

open doors for the TI Community, so I don't want to appear as a haggler, but at the same time, ESD popped up when Myarc was falling on their faces. What other hardware (non-TI) do they have to their credit?

<Chris> ESD has primarily been involved in design work for PC clones, such as memory boards, networking, and consulting. They also did work with orphaned computers in the past. ESD has at least one patent on an electronics relay which is a spray that one sprays on circuit boards, and it changes color with the amount of heat.

Okay, Chris. I just wanted to establish that ESD was capable, and I think you have done that.

GREGGRPH> Chris, will the new HDC be compatible with the Geneve? If not, will one be designed? I've heard it both ways.

<Chris> Yes, the new card WILL support the Geneve.

GREGGRPH> GREAT!!!! Thanks!

<Chris> Let me explain perhaps why you have heard two different versions. The Geneve is not 100% TI-compatible when it comes down to things like controlling drives, and there are so many versions of WDOS out that we would have to lock down one that would work with ESD's card. To keep it short, our card will work with both computers and do so in the same DSR which is housed in the card's EEPROM.

EICHEN> Chris, will this controller incorporate any caching to improve throughput on the floppy or the hard drive side? Will the floppies created be interchangeable with those created on the Myarc HFDC in both format and subdirectories for disks with 80 tracks?

<Chris> The card has a buffer on board, and that does enhance its performance, but I would not call it a cache. As far as the floppy disks being interchangeable with Myarc's subdirectories, yes they will be readable.

As far as the hard drive, no. I would hope you reformat it with ESD's recommended format of 512 bytes/sector, but that's another topic/question.

EICHEN> Will this be like a Horizon product where you receive source to the DSR and manager?

MIKEMCG> Chris, will DSK1 on HD emulate a Drive 1 in most respects--archiving files to and from?

<Chris> Source code for the DSR and diskmanager, no. Updates to the DSR do have the advantage of being directly read into the EEPROM from floppy. DSK1 (I assume subdirectory) can emulate Drive 1. In fact, ALL subdirectories can emulate DSK1. Simply by assigning the PATH. This was one feature that I liked most.

MIKEMCG> Will there be the same file max in HD as 80-track disk?

[Editor thinks "hd" above means high-density, and not hard disk. Host was unable to catch it during the conference.]

<Chris> Don, I have not forgotten your original question: Will PC TRANSFER work with it? No, I am sorry that program will not run, but another program will be written to do transferring from PC to TI.

<Don O'Neil> Since ESD is a relatively secure company, will they be embarking on any other TI projects, or perhaps produce others products for the TI market?

<Chris> The reason ESD recommends that you format the HD to 512 bytes/sector is so that one can put more files/subdirectories on the HD.

<Don O'Neil> Will the HFDC work like Myarc's; name a dir DSK1 or DSK and it searches here first for load and programs before going to the physical drive. Also, what about cabling? Is it the same as the Myarc HFDC?

MIKEMCG> When can I expect my controller that I paid for in November?

DOWHCC> What about the "Interlace" question? That has always been a sore spot with me.

<Chris> Don, yes. If the W/F Controller takes off the way I know it will, ESD will be embarking on many new TI products: e.g., SCSI Cards -- that has many openings, including a tape back-up.

<Don O'Neil> Thanks for the response to my PC Transfer question. What will it do that PC transfer doesn't? Will it support 1.44 and 1.2 Meg PC formats?

<Chris> I already made a guess that ESD will start shipping in 6 weeks. All users should have them by then.

The interleave on the card will be done automatically by the diskmanager by the information you supply when you run the setup program. It is a very user friendly program. I mean of course the interleave for formatting the HD.

I will definitely support the 1.44MB PC formats, and you can actually port the files over to 1.44MB TI format. That's right. The ESD card supports 1.44MB 3-1/2" disks.

<Don O'Neil> What about the DSK1 and DSK issue?

<Chris> The DSK1 emulation is handled by the PATH command.

<Don O'Neil> What I mean is not emulation,...

<Chris> You can call it from basic, set it in the DiskManager, or, I hope soon, a menu program. Yes, I understand, poor choice of words on my part.

<Don O'Neil> But like the Myarc HFDC does. Will it search a directory named DSK1 or DSK for the programs, and if the files are not there it will go to the physical DSK1?

<Chris> It will search ANY subdirectory name that is the current PATH, then go to the physical DSK1.

<Beery> How does ESD plan to make their HFDC Geneve-compatible? Have they received from Myarc or Charlton the necessary information to interface? Or has the software to support it already been written? I ask this as Myarc has problems [writing software for the Geneve to support their HFDC, so how can we expect ESD to do it?]

<Chris> No, neither ESD nor myself has received any information from Myarc.

<Beery> Chris, does ESD have a DOS version that already exists in mind?

<Chris> What we will do to make the card work with the Geneve is use an OS that uses ESD's DSR--that being M-DOS 1.14. ESD also plans on contracting another programmer besides myself to help on that project.

<Beery> Chris, if you go with M-DOS 1.14, you will most likely make it work, but you will not be using the latest software, and it won't work with ABASIC, etc. However, 1.14 is a fairly good DOS.

<Chris> Valid points. The best solution in my mind is to rewrite the entire OS. Unfortunately, unlikely.

<Beery> Chris, as a thought, Paul Charlton is negotiable (\$\$\$) if you need to interface it, but to work ONLY with 1.14 is a mistake in my opinion.

[Editor notes that getting the ESD M/F Controller to work with the Geneve is not simply a matter of using M-DOS 1.14. At minimum, the ESD EEPROM will have to be able to load SYSTEM/SYS or a loader (like LOAD/SYS) to do it. The Geneve will also need to know to use the ESD EEPROM upon power-up, which may require special header bytes in the ESD EEPROM or a new Geneve boot EPROM.]

MPC> What is the cost?

<Chris> The cost is \$225 delivered to the Continental U.S. Maryland residents, please don't forget sales tax.

EICHER> Chris, approximately how many man-hours go into the design and development of a product like this? I am assuming it uses MFN drives. Why wasn't the controller designed with a built in SCSI port? I mean it looks like it wouldn't have added that much more difficulty to the project. Is ESD the sole marketer?

<Chris> ESD is the sole marketer (at least for awhile).

LMCCURE> What chances for a SCSI version of the HFDC in the future?

<Chris> Many, many man-hours went into the ESD M/F Controller project. It all started over a year ago.

There will not be a SCSI version of the M/F Controller, but there will (maybe) be a separate SCSI card.

MIKEMCG> SCSI?

EICHER> As a thought, I think TI now makes a SCSI controller on a chip.

<Don O'Neil> Small Computer System Interface

VONRICKY> "scuzzy"

<Chris> Yes, it stands for Small Computer System Interface. Many devices can be attached and even chained together. Hard drives, CD ROMs, Tape Backup, etc.

DOWNHCC> Jeez, Chris, I didn't know this was going to be a pseudo-grilling. I was just checking in to see if any new stats or interfaces were going

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to be introduced. I WAS, however, very interested in seeing if any more bugs were anticipated. I was wondering how the new card would handle the interleave (interleave factor which Myarc setup, or whether it would handle it automatically).

<Chris> The interleave which Myarc setup?

DOWNHCC> Yep.

<Chris> You mean use your current Myarc formatted Hard disk? No.

DOWNHCC> I have had a lot of trouble with Myarc's interleave setup, and I wondered how you would format floppies, and what speed etc. you would use with them.

<Chris> The diskmanager will automatically choose the best interleave settings when you format either a floppy or hard drive. You, of course, can override.

DOWNHCC> I understand you would have to reformat your Myarc formatted HD, and have no problem with it. But what is the actual procedure for formatting the floppies? Excellent, I am much happier with that than guesswork.

<Chris> When using a floppy you may specify a head step-rate in the setup program for any of the four floppies.

DOWNHCC> Cool. You say 6 weeks to delivery? Any other problems anticipated in the delivery schedule?

<Chris> Oh, the setup program then stores the information in the EEPROM, and the diskmanager then uses the information for formatting and such. I estimated 6 weeks. Shane would not give me an exact date (I am sorry to say). But understand that it is in ESD's best interests to ship ASAP. Delaying hurts everyone. But it is better to take the time to do it right than make the time to do it twice (as Shane says).

MIKEMCG> Chris, what about cables?

<Chris> Yes, cables...

MIKEMCG> I plan on running two external 40 megs and wonder about what else I will need.

<Chris> The first difference between the two controllers is that ESD's has TWO separate floppy connectors. One for inside floppies and one for external floppies.

MIKEMCG> I already got the drives but no external cables.

<Chris> The hard drive connector is setup for the hard drive(s) with up to as many as 4 edge connectors crimped on to it.

MIKEMCG> Will I need a split cable as in my P-Box floppies?

<Chris> You will also need one 20-pin cable for each hard drive.

MIKEMCG> Also, my HD has 2 edge cards on each drive?

<Chris> No split cable is needed. The second edge card is for the 20-pin cable. You have one 34 and one 20, yes?

MIKEMCG> Is all this in provided docs?

<Chris> Yes, this is all provided in the docs. I wrote them, but believe me I describe it better in the docs than I just did. OK?

MIKEMCG> GREAT! At this time, any known program for the TI that won't work with HD?

<Chris> One more thing regarding cables. They are straight-through cables, no twists like in the IBM cables, but like the way Myarc and TI uses them.

MIKEMCG> My external power supply has an external pin connector--can I use it to connect both drives?

<Chris> I would say that the only program I think you will have trouble with is the PLATO disks because of their strange SS/SD formatting, but you could still use them from floppy. Also, one could modify them using a sector editor (or someone write a program to port them over). I am sorry I did not understand what you meant by an external pin connector. There is already a cable set up inside the power supply and that cable runs to an external pin connector.

MIKEMCG> I am still not sure what you mean. Do you wish to use a Y-connector to connect both drives? Of course, it all relies on the specifications of the power supply and what kind of drives (how much power they draw).

MIKEMCG> I think the Y-cable is already in the power supply, but I'm not sure. (This is my 1st HD.)

<Jeff> I think he is saying his external drive box has a single card-edge connector for both drives.

MIKEMCG> Right.

<Chris> Card-edge connector?

MIKEMCG> I'll read the docs and then ask my questions.

<Chris> I would say if they are standard MFM drives, they will run fine.

<Jeff> Like the external connector on the TI controller card.

<Chris> The set-up (as Jerry reminded me) is the same as the existing Myarc card.

<Jeff> I'd like to publically thank Rick Keppler for helping me set up this conference with Chris Pratt.

<Chris> Yes. Thank you, Rick.

VONRICKY> And I'd like to thank you for doing this. Now, two quick questions.

First, will your disk manager have provisions for doing fast floppy to floppy copying, ala Rapid Copy etc. If not, will any existing copiers work?

<Chris> I can say that the DSR will support TI software that is 100% TI compatible--meaning programs that do not by-pass the DSR will run.

VONRICKY> So Turbo Copy should run.

<Chris> Programs like PC Transfer and the new hard drive backup program will not, but ESD or others will hopefully fill the gap with new programs.

Yes, Turbo Copy should run.

VONRICKY> Second, what will be your upgrade policy on the OS? I mean the one in the EEPROM?

<Chris> The upgrade policy that ESD will use (remember that I am not ESD) is that they will ship ALL registered users a floppy disk with the new DSR (if one should become necessary), and it will auto-upgrade. Also, I would imagine that it could be passed around on BBS's and the like, too, without any problem.

<Don O'Neil> If you attempt a SCSI card, will you plan it to be compatible with PC CD ROMs? Also, does your HFDC have the same floppy problems on the TI as Myarc's, or are all the problems solved? Also, where can we get all the information you have on it, just send to your address?

<Chris> Please send to the PQ BOX that ESD uses for TI correspondence: P.O. Box 23805, Washington, DC 20026-3805. They will promptly answer your questions. The SCSI project is only in the works now. I may not even get the bid to do the DSR. But I would think that the DSR would be made in an EEPROM so you could load a new DSR for a new device. Also, you could have more than one SCSI card in your PBOW.

As far as making use of CD ROMs, text-based and perhaps some simple graphics-based ones could be used, but some CDs are licensed with specific software that will run only on PC, Mac, etc. I would love to see ASGAR software or MS-EXPRESS do a TI adventure on a CD ROM! <Don O'Neil> There are some CD ROM's that are things like the dictionary and encyclopedia, those are the ones I was referring to.

<Chris> Yes, I would imagine those would be the first ones you would be able to use.

<Don O'Neil> Does your HFDC ship with the support for 1.44 and 1.2 Meg floppies right out of the box at any drive number?

<Chris> The ESD card has support for 80 track floppies right out of the box and at any drive number.

<Don O'Neil> What about High Density?

<Chris> And as I have mentioned before (not tonight) to others, I would recommend all TI'ers look at going 3 1/2" floppies. Yes, 1.44MB 3 1/2" drives are supported!

<Don O'Neil> I have one 3 1/2" on my HFDC, but it has problems writing to it.

It sometimes overwrites used sectors.

<Chris> 3 1/2" 1.44MB Sony drives can be purchased for as little as \$60. I was using two 3 1/2" drives with my Myarc HFDC and they never worked right. Hence my seeking out ESD to do one.

NPC> Rave says ESD has interest in their....

<Chris> Yes!!!!!! I love the new RAVE 16-bit bus in their PE/2 BOX.

NPC> new expansion box. Do you want to comment?

<Chris> I would love to see ESD make a 16-bit autosensing card to go in either the RAVE or the TI P-BOX. It would enhance performance greatly. One thing I want to mention before I lose too many more people. I should have stated this earlier. Charles Good called my answering

machine while I was on vacation. He said that the people behind Funnelweb (Sorry, it's getting late and my mind is not working at full speed. I can't remember names.) want to add additional support for the ESD card! That shocked me, since I thought 4.31 would be it. I am going to contact Charles tomorrow.

<Jeff> [Tony and Will McGovern]

<Chris> Funnelweb could enhance performance many ways. One being selecting the PATH from the menu. Yes, Tony and Will McGovern. Thanks, Jeff. I will do everything I can to assist Tony in supporting the ESD H/F Controller.

DONMCC> I heard that Tony and Will are going Amiga and that 4.31 is probably the last thing we will see in the Funnelweb vein. Any comments?

<Chris> That is what I heard. But Charles just called me stating he got two letters from Tony stating he wanted to add support!

<Jeff> I've heard only Will has gone Amiga.

<Chris> Will the ESD HFDC docs contain complete technical docs similar to Myarc's?

<Chris> No, complete technical docs will not come standard to the normal user. But, ESD will provide them upon request <as far as I understand>. Very complete docs do come standard for using all software that comes with the card, and setting up the new hard drive system and using 1.44MB drives.

<Jeff> Did the information I left you regarding possible Geneve-compatibility on the floppy side shed any light?

<Chris> The CPU addresses? Yes.

<Jeff> Did it look good as far as similar mappings?

DONMCC> Any problems with Ramdisks, etc.--especially Myarc?

<Jeff> Did CPU-map of Corcomp and ESD look the same on floppy side?

<Chris> Similar mappings as far as with the Geneve? No. With floppy disks in general? Yes.

There would not be any problem with Korizon Ramdisks. Sorry I am not familiar enough with the other types of Ramdisks for the TI. Not identical!

<Jeff> Are the old or the new chips going to be used? Added capabilities from original design?

<Chris> OLD OR NEW? Let me list what Western Digital chips will be used.

The WD2010 will be the Hard Drive controller chip. The WD2793AJW-02 will be the floppy controller chip. And a WD10C22 or WD10C23 will be used as data separator.

<Jeff> Then the new chips are being used. Originally, you had said WD1010A for hard drives.

<Chris> The only chip that has changed is the WD2010 from the WD1010A (these are pin-for-pin compatible)--in fact it is a bit better, and of course more expensive.

<Jeff> This SCSI card that is being contemplated: will it be the newer SCSI-II bus (16-bit data) or 8-bit SCSI?

<Chris> It will not effect anyone which chip is finally used. My DSR will work with either!

I am sorry, Jeff. As I said earlier, it is in the very early stages now, and ESD may not even do it. But I would guess 8-bit SCSI.

<Jeff> Is the ESD HFDC DSR your first major programming accomplishment? I have not heard of you before ESD. Is your background in computers?

<Chris> Jeff, my background is in computers, TI computers in fact. But now I work with IBM CLONES and MACS.

<Chris> Currently, I work full-time at the Office of Computer Services, National Air and Space Museum, Smithsonian Institution. I have a TI and program with it in my spare time, which is hard to find since I am also continuing my education at the George Washington University.

<Jeff> Does ESD HFDC use the external interrupt of the P-box?

<Chris> I also am the new editor of the West Penn 99'ers Newsletter and have been using a TI since 1982. I am a diehard TI'er and will never get rid of my 18 consoles, 5 P-boxes, and other TI collectable I store in my attic.

If memory serves, yes it does use the external interrupt of the P-box. Okay, just not sure who Chris Pratt was until ESD entered the HFDC picture.

<Chris> You may also remember I converted over 150 double-sided disks of MacPaint files from the MAC to the TI about 2 years ago. I donated them to many club libraries.
ESD is very interested in getting TI's using 3 1/2" drives. In Chicago they had a 3 1/2" 1.44MB drive giveaway and possibly will have 3 1/2" drive promos later.
DOMCC> I have a pair running off my Myarc HFDC without problem, but I don't know if they will do 1.44MB or not--will have to wait and see
<Jeff> Chris, perhaps you could sum up how the ESD HFDC compares and is superior to the MYARC HFDC? Why should anyone choose the ESD over the MYARC card?
<Chris> One very simple reason to choose ESD over Myarc is customer support. ESD, although not proven, yet, and a delay in the first shipment does not prove otherwise, will provide support such as:

DSR UPGRADES IN EEPROM -- new technology
SURFACE MOUNT CHIPS -- new technology

New technology in the TI world, not in general. Let me sum up by saying that the ESD H/F Controller is how I envision a HARD DRIVE CONTROLLER should work for the TI. It was done so because of the lack of support from Myarc, and I was simply not satisfied with the Myarc card after waiting 4 months after Jim recieved my check (this was about two years ago).

Well I think I've said enough tonight. Any other questions can be sent to: ESD, P.O. BOX 23805, Washington, DC 20026-3805. Either I or someone from ESD will answer your questions very promptly. One more thing: ESD will provide 24 hour credit card orders too. <I do not know the date that will start>.

<Jeff> Chris, once again, thanks for coming. Maybe we can have you or another ESD representative come on after the H/F Controller is released to talk some more on software and hardware.

<Chris> Also, I will keep people informed through the West Penn newsletter <since I'm the editor>.
I look forward to hearing the general applause from the TI community when everyone finally receives their cards!

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For most cartridges manuals are with them, for those stated without manuals, a Xerox copy can be arranged - I still need those manuals

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David G. McIntosh
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TORONTO NEWSLETTER 9-T-9 FEB 91

THIS ISSUE CONTAINS SEVERAL DIGITIZED PICTURES AND SOME CLEVER HARDWARE IDEAS. THE PIX ARE FROM THE ONTARIO COMPUTER FAIR. HARDWARE HACKERS WILL BE INTERESTED IN "MIKE'S CORNER" OR 'BUTTER FINGERS REPAIR SECTION' BY MICHAEL O'DOWD. I AM NOT GOING TO READ HIS ARTICLE, HE MAKES 'MESSING AROUND WITH 'LECTRONIC STUFF' SOUND FAR TOO EASY,.. I CAN GET IN ENOUGH TROUBLE JUST CONNECTING STUFF!

THERE ARE A COUPLE OF PAGES OF 9-T-9 LIBRARY LISTING, AND PART II OF TONY LEWIS' TALES OF A POWER SUPPLY.

THERE'S AN ARTICLE ABOUT THE TI99/4B A FUTURISTIC TI WHICH WOULD BE MOUTH-WATERING TO SOME.

THERE IS A REPRINT OF AN ARTICLE FROM STEVE BURNS OF THE BLUEGRASS 99'ERS. YOU KNOW THE WAY "THAT DAMN GREAT BOOT" TO THE PEB CABLE WILL SOMETIMES SHIFT ENTIRELY ON ITS OWN AND CRASH THAT PROGRAM YOU WERE KEYING-IN AND WERE JUST ABOUT TO SAVE WHEN YOU LOST EVERYTHING? WELL HERE IS A PRACTICAL SOLUTION NOT REQUIRING DYNAMITE OR ANYTHING. JUST ATTACH SMALL PIECES OF ADHESIVE-BACKED VELCRO TO THE CONSOLE AND THE BOOT TO HOLD THEM TOGETHER!! BRAINS WILL TELL,- EVERY TIME!!

SPEAKING OF BRAINS, THE USUAL DISK OF THE MONTH HAS BEEN REPLACED BY A FEATURE DISK WHICH HAS A PROGRAM CALLED "BRAINBUSTER", SOMETHING LIKE THE WORDSEARCH PUZZLES IN THE PAPER, WHICH ALLOWS YOU TO PRINT YOUR OWN, TO EITHER SCREEN OR PRINTER, IN THREE DIFFERENT SIZES. 10X10, 20X20 OR 25X25 AND THE 317 SECTOR DICTIONARY WILL SUPPLY APPROXIMATELY 10, 40 OR 60 WORDS RESPECTIVELY. THE SOLUTION IS AVAILABLE ON REQUEST, BUT WHO WOULD CHEAT?



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